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May 14, 1998

Doug Jensen
Environmental Coordinator
USMX of Utah, Inc./Dakota Mining Corporation
P.O. Box 2650
St. George, Utah 84771

Re: Review of Draft Closure Plan, USMX of Utah, Inc./Dakota Mining Corporation, Goldstrike Mine, M/053/005, Washington County, Utah

Dear Mr. Jensen:

The Division has completed its evaluation of your company's draft Closure Plan for the Goldstrike Mine which we received from the Utah Division of Water Quality on April 14, 1998. The plan has also been reviewed by the Bureau of Land Management, Dixie Resource Area. We have attached a copy of their formal review comments to this document. The State Division of Water Quality will be preparing and forwarding their own response letter to your draft Closure Plan outlining their technical concerns as soon as possible.

We appreciate the opportunity of meeting with you on April 29, 1998 to discuss the draft plan in our Salt Lake City office. It was a productive and beneficial meeting for ourselves and DWQ to jointly discuss the closure plan and our preliminary concerns with you. We believe we have a better understanding of the plan and the status of the existing conditions at the mine site.

Our review comments of the draft closure plan are as follows:

- 1. The HELP model was calibrated using actual conditions. The calibration was performed without allowing any run-off of precipitation from the pad. The predictive models assume that 75% of the area extent of the two pads will be able to shed run-off. What type of surface conditions does this assumption represent? (Fully revegetated or ?) Is this a worst case scenario?
- 2. Two attenuation studies were performed. One showed attenuation of nitrate and cyanide and the other did not. Does using the average attenuation of these two studies seem

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reasonable? Should we use the worst case attenuation? The studies predict attenuation based on a mass volume, but what is known about the rate of attenuation?

- 3. What were the initial moisture conditions of the waste rock backfill used in calculating the effects of land disposal of the residual waters? Are the assumptions of no evaporation and no precipitation reflective of the worst case scenario? After 20 years the moisture retention capacity of the waste rock will be exceeded. Will the undesirable contaminants be attenuated within 20 years? What will happen after the moisture retention is exceeded?
- 4. The 8/25/93 reclamation plan called for the solutions and residual materials in the process ponds to be tested for WAD cyanide and heavy metals to determine if the residual materials need to be handled as hazardous waste. This permanent closure plan will need to mention this process for dealing with the pond sediments and pond liners.
- 5. The Permanent Closure Plan did not include a detailed description of surface structures and facilities which are not part of the process facilities. Are there fuel tanks, maintenance facilities, office buildings, etc., which will need to be removed? Please describe them.

Thank you for your patience and continued cooperation in working with us to bring about proper closure and final reclamation of the Goldstrike Mine. Please contact me or Tony Gallegos at (801) 538-5286 and 538-5267 if you have any questions or concerns with these review comments.

Sincerely,

D. Wayne Hedberg Permit Supervisor

Minerals Regulatory Program

jb

Attachment

cc: Dennis Frederick, DWQ
Larry Gore, BLM - Dixie RA
Joe Kircher, Dakota
Bob Bayer, JBR Consultants
m053005.dcp

m/053/005



## UNITED STATES DEPARTMENT OF THE INTERIOR

## BUREAU OF LAND MANAGEMENT DIXIE RESOURCE AREA

345 E. Riverside Drive St. George, Utah 84790

Phone (435)688-3200 · Fax (435)688-3252

In reply refer to: 3809 UTU-68572 (UT-045) DIV. OF OIL, GAS & MINING

May 5, 1998

Wayne Hedberg Utah Div. of Oil, Gas, and Mining 1594 West North Temple, Ste. 1210 Box 145801 Salt Lake City, UT 84114-5801

Dear Mr. Hedberg:

We have reviewed the "USMX Goldstrike Mine Draft Permanent Closure Plan, April 1998" you sent to us on April 15, 1998 and have several comments which need to be addressed during the preparation of the final document. Depending on how significant the changes to the part of the project on Federal lands are, additional NEPA documentation may also be required.

Land disposal/attenuation is acceptable under the Utah Cyanide management plan. The Hamburg Pit, proposed site of attenuation, is on the patented claims - therefore the BLM will not need to authorize it; although we would appreciate the opportunity to review the design of the attenuation field.

When comparing the meteoric water mobility test data (table 3.5) to some of the background and upstream samples collected during the flood events over the life of the mine, it appears the pad sample doesn't release significantly more than what occurs naturally in the flood events.

On page 11 of the plan (3.4 Hamburg Backfill), the plan states that Northern Exploration (should be North Mining) did not encounter water in the Hamburg Pit. However, water is documented seeping from the Basin pit wall, adjacent to the Hamburg Pit. This seepage is still going on, and was noticed during my April 1998 inspection. Therefore, mobile groundwater does occur in the area, and needs to be considered. During discussions on the mine site, it appears the water is seeping from the fault zone. The Hamburg Pit was excavated on the same fault zone so there is the potential for the effluent from the leach field to enter the fault at some time and then migrate along it.

I need maps showing the final grade proposed for the leach pad #2 and plant site, and the amount of topsoil to be spread. The pipes which will lead to the attenuation field also need to be shown. I recommend the existing seed mix be required. If the grading, soiling, etc. will be significantly different than accepted in the existing plan, then additional NEPA documentation will be required.

In Removal of Physical Facilities (section 5.0) no mention is made of testing the pond residues, liners, and clay under the liners for cyanide and heavy metal contamination, and removing any contamination from site if necessary. This was required in the Plan of Operations, and will be required by the BLM.

In the Long Term Monitoring and Final Release section (section 6), the "acceptable results" for which the samples will be tested need to be specified.

In the Long Term Monitoring and Final Release section (section 6), they propose to test quarterly until a series of four samples achieves acceptable results, and then stop sampling. The BLM Cyanide Management Plan requires a minimum of 5 years of monitoring, regardless of results; and longer monitoring may be required if testing shows it is warranted. This needs to be incorporated into the plan.

If you have any questions, please contact me at 435-688-3205.

Sincerely,

Larry Gore Geologist